

AMENDMENTS TO THE CLAIMS

The following is a copy of Applicants' claims that identifies language being added with underlining ("____") and language being deleted with strikethrough ("—"), as is applicable:

1. (Canceled)
2. (Previously Presented) A method of adjusting transmit performance parameters over a digital subscriber line (DSL), the method performed in a first DSL modem, the method comprising the steps of:
 - negotiating, with a second DSL modem, a limiting value of a first performance parameter;
 - receiving, from the second DSL modem, a signal exhibiting the first performance parameter, the received signal comprising a plurality of sub-bands, each sub-band transmitted at a respective transmit power level;
 - determining a signal-to-noise-ratio for a sub-band of the received signal; and
 - requesting, from the second DSL modem, an adjustment in a second performance parameter associated with the sub-band of the received signal, wherein the second performance parameter is different from the first performance parameter.
3. (Previously Presented) The method of claim 2, further comprising the step of:
 - receiving, from the second DSL modem, a second signal exhibiting the first performance parameter and the adjustment in the second performance parameter.
4. (Previously Presented) The method of claim 2, wherein the second performance parameter is transmit power level.
5. (Previously Presented) The method of claim 2, wherein the second performance parameter is transmit data rate.

6. (Previously Presented) The method of claim 2, wherein said negotiating step is performed after the receiving step and before the determining step.
7. (Previously Presented) The method of claim 6, wherein said second performance parameter is transmit data rate and said first performance parameter is transmit power level.
8. (Previously Presented) The method of claim 6, wherein said second performance parameter is transmit power level and said first performance parameter is transmit data rate.
9. (Previously Presented) The method of claim 2, further comprising the step of:
selecting the second performance parameter from a plurality of possible performance parameters.
10. (Previously Presented) The method of claim 2, further comprising the step of:
repeating the receiving, determining and requesting steps until the first performance parameter of the received signal is marginally supported.
11. (Previously Presented) The method of claim 2, further comprising the step of:
repeating, using the negotiated value for the first performance parameter, the receiving, determining and requesting steps until the received signal marginally supports the adjustment to the second performance parameter.
12. (Canceled).
13. (Previously Presented) The method of claim 2, wherein receiving the signal is over a primary channel and requesting the adjustment is over a secondary channel.

14. (Currently Amended) A receiving digital subscriber line (DSL) modem comprising:
means for receiving, from a transmitting DSL modem, a signal exhibiting a first performance parameter;
means for negotiating, with the transmitting DSL modem, a value for the first performance parameter;
means for determining a signal-to-noise-ratio for the received signal; and
means for requesting, from the transmitting DSL modem, an adjustment in a second performance parameter associated with the received signal based at least in part upon the signal-to-noise-ratio, wherein the second performance parameter is transmit data rate, and wherein the second performance parameter is different from the first performance parameter.
- 15-17. (Canceled)
18. (Previously Presented) The receiving DSL modem of claim 14, wherein said first performance parameter is transmit power level.
19. (Canceled)
20. (Currently Amended) The receiving DSL modem of claim 14, further comprising:
means for selecting the second first performance parameter from a plurality of possible performance parameters.
21. (Currently Amended) The receiving DSL modem of claim 14, wherein:
the received signal comprises a plurality of sub-bands, each sub-band transmitted at a transmit power level; and
the means for determining the -a- signal-to-noise-ratio for the received signal comprises means for determining a signal-to-noise-ratio for a sub-band in the received signal.

22. (Currently Amended) A system for adjusting transmit performance parameters over a digital subscriber line (DSL) comprising:

means for negotiating, with a DSL modem, a maximum value for a first performance parameter;

means for receiving, from the DSL modem, a signal exhibiting the first performance parameter, the signal comprising a plurality of sub-bands, each sub-band transmitted at a respective transmit power level;

means for determining a signal-to-noise-ratio for the received signal; and

means for requesting, from the DSL modem, an adjustment in a second performance parameter associated with the received signal based at least in part upon the signal-to-noise-ratio, wherein the second performance parameter is different from the first performance parameter.

23. (Canceled)

24. (Previously Presented) The system of claim 22, wherein the means for determining comprises means for determining a signal-to-noise-ratio for a sub-band of the received signal.

25. (Previously Presented) The system of claim 24, wherein the means for requesting comprises means for requesting an adjustment in the second performance parameter associated with the sub-band of the received signal.

26-28. (Canceled).

29. (Previously Presented) The method of claim 2, wherein the limiting value of the first performance parameter is a minimum value.

30. (Previously Presented) The receiving DSL modem of claim 14, wherein the value for the first performance parameter is a limiting value.

31. (Currently Amended) A method of adjusting transmit performance parameters over a digital subscriber line (DSL), the method performed in a first DSL modem, the method comprising the steps of:

negotiating, with a second DSL modem, a maximum value for a first performance parameter;

receiving, from the second DSL modem, a signal exhibiting the first performance parameter, wherein the received signal comprises a plurality of sub-bands, each sub-band transmitted at a respective transmit power level;

determining a signal-to-noise-ratio for the received signal; and

requesting, from the second DSL modem, an adjustment in a second performance parameter associated with the received signal based at least in part upon the signal-to-noise-ratio, wherein the second performance parameter is different from the first performance parameter.

32. (Previously Presented) The method of claim 31, wherein the determining step comprises determining a signal-to-noise-ratio for a sub-band of the received signal.

33. (Previously Presented) The method of claim 32, wherein the requesting step comprises requesting an adjustment in the second performance parameter associated with the sub-band of the received signal.

34. (Previously Presented) The method of claim 31, further comprising the step of:
repeating the receiving, determining and requesting steps until the first performance parameter of the received signal is marginally supported.

35. (Previously Presented) The method of claim 31, further comprising the step of:
repeating, using the negotiated value for the first performance parameter, the receiving, determining and requesting steps until the received signal marginally supports the adjustment to the second performance parameter.
36. (Previously Presented) The method of claim 31, wherein the second performance parameter is transmit data rate.
37. (Currently Amended) A receiving digital subscriber line (DSL) modem comprising:
a demodulator in communication with a transmitting DSL modem;
a memory;
a central processing unit (CPU) in communication with the demodulator and the memory; and
a control program stored in the memory, the control program configured to, when executed by the CPU:
negotiate, with the transmitting DSL modem, a limiting value of a first performance parameter;
determine a signal-to-noise-ratio for a signal received from the transmitting DSL modem, the signal exhibiting the first performance parameter; and
request, from the transmitting DSL modem, an adjustment in a second performance parameter associated with the received signal based at least in part upon the signal-to-noise-ratio, wherein the second performance parameter is transmit data rate, wherein the second performance parameter is different from the first performance parameter.
38. (Previously Presented) The receiving DSL modem of claim 37, wherein the control program is further configured to select the second performance parameter from a plurality of possible performance parameters.

39. (Previously Presented) The receiving DSL modem of claim 37, wherein the control program is further configured to determine a signal-to-noise-ratio for a sub-band in the received signal, wherein the sub-band is transmitted at an associated transmit power level.

40. (Previously Presented) The receiving DSL modem of claim 39, wherein the control program is further configured to request, from the transmitting DSL modem, an adjustment in the second performance parameter associated with the sub-band of the received signal.

41. (Previously Presented) The receiving DSL modem of claim 37, wherein the control program is further configured to:

receive, from the transmitting DSL modem, a second signal exhibiting the first performance parameter and the adjustment in the second performance parameter.

42-44. (Canceled)

45. (Previously Presented) The receiving DSL modem of claim 37, wherein said first performance parameter is transmit power level.

46. (Previously Presented) The receiving DSL modem of claim 37, wherein the control program is further configured to repeat determining a signal-to-noise-ratio and requesting an adjustment until the first performance parameter of the received signal is marginally supported.

47. (Previously Presented) The receiving DSL modem of claim 37, wherein the control program is further configured to repeat, using the negotiated limiting value for the first performance parameter, determining a signal-to-noise-ratio and requesting an adjustment until the received signal marginally supports the adjustment to the second performance parameter.

48. (Previously Presented) The receiving DSL modem of claim 37, wherein the signal is received over a primary channel and the adjustment is requested over a secondary channel.

49. (Previously Presented) The method of claim 2, further comprising the step of:
receiving, from the second DSL modem, a second signal exhibiting the first performance parameter and the adjustment in the second performance parameter associated with the sub-band of the received signal.
50. (Previously Presented) The receiving DSL modem of claim 21, where in the means for requesting comprises means for requesting an adjustment in the second performance parameter associated with the sub-band of the received signal.
51. (Previously Presented) The receiving DSL modem of claim 50, further comprising:
means for receiving, from the transmitting DSL modem, a second signal exhibiting the first performance parameter and the adjustment in the second performance parameter associated with the sub-band of the received signal.
52. (Previously Presented) The receiving DSL modem of claim 30, wherein the limiting value for the first performance parameter is a maximum value.
53. (Previously Presented) The receiving DSL modem of claim 14, wherein the signal is received over a primary channel and the adjustment is requested over a secondary channel.
54. (Previously Presented) The system of claim 25, further comprising:
means for receiving, from the DSL modem, a second signal exhibiting the first performance parameter and the adjustment in the second performance parameter associated with the sub-band of the received signal.
55. (Canceled).
56. (Previously Presented) The system of claim 22, wherein the signal is received over a primary channel and the adjustment is requested over a secondary channel.

57. (Previously Presented) The method of claim 31, wherein the second performance parameter is transmit power level.
58. (Previously Presented) The method of claim 31, wherein said negotiating step is performed after the receiving step and before the determining step.
59. (Previously Presented) The method of claim 58, wherein said second performance parameter is transmit data rate and said first performance parameter is transmit power level.
60. (Previously Presented) The method of claim 58, wherein said second performance parameter is transmit power level and said first performance parameter is transmit data rate.
61. (Previously Presented) The method of claim 31, further comprising the step of:
selecting the second performance parameter from a plurality of possible performance parameters.
62. (Previously Presented) The method of claim 31, wherein the signal is received over a primary channel and the adjustment is requested over a secondary channel.

63. (Currently Amended) A method of adjusting transmit performance parameters over a digital subscriber line (DSL), the method performed in a first DSL modem, the method comprising the steps of:

negotiating, with a second DSL modem, a value for a first performance parameter;
receiving, from the second DSL modem, a signal exhibiting the first performance parameter;
determining a signal-to-noise-ratio for the received signal; and
requesting, from the second DSL modem, an adjustment in a second performance parameter associated with the received signal based at least in part upon the signal-to-noise-ratio, wherein the second performance parameter is transmit data rate, and wherein the second performance parameter is different from the first performance parameter.

64. (Previously Presented) The method of claim 63, further comprising the step of:

receiving, from the second DSL modem, a second signal exhibiting the first performance parameter and the adjustment in the second performance parameter.

65. (Previously Presented) The method of claim 63, wherein said negotiating step is performed after the receiving step and before the determining step.

66. (Previously Presented) The method of claim 65, wherein said first performance parameter is transmit power level.

67. (Previously Presented) The method of claim 63, further comprising the step of:

repeating the receiving, determining and requesting steps until the first performance parameter of the received signal is marginally supported.

68. (Previously Presented) The method of claim 63, further comprising the step of:
repeating, using the negotiated value for the first performance parameter, the receiving, determining and requesting steps until the received signal marginally supports the adjustment to the second performance parameter.
69. (Previously Presented) The method of claim 63, wherein the received signal comprises a plurality of sub-bands, each sub-band transmitted at a transmit power level.
70. (Previously Presented) The method of claim 69, wherein the determining step comprises determining a signal-to-noise-ratio for a sub-band of the received signal.
71. (Previously Presented) The method of claim 70, wherein the requesting step comprises requesting an adjustment in the second performance parameter associated with the sub-band of the received signal.
72. (Previously Presented) The method of claim 63, wherein receiving the signal is over a primary channel and requesting the adjustment is over a secondary channel.